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THE USE OF EXPERT EVIDENCE IN RES IPSA LOQUITUR CASES*

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THE HAPPENING of an accident, in the light of a general body of accumulated experience concerning similar circumstances, may permit the inference that the defendant was negligent, even though no direct testimony has been supplied as to the defendant's conduct at the very time of the negligent act. One type of circumstantial evidence is that known as res ipsa loquitur, for which there are three generally accepted requirements: (1) the accident must be of a kind which ordinarily does not occur in the absence of somebody's negligence; (2) the instrumentality causing the accident must have been within the exclusive control of the defendant; (3) the injury must have happened irrespective of any voluntary action on the part of the plaintiff.

Each of these so-called requirements will be critically discussed, but the main burden of attention will be directed at the first, since it is in relation to this requirement that expert testimony may most fruitfully be employed. The relationship between this requirement and the logic of proof, especially the principle that in a civil case the plaintiff is required to establish his case "by a preponderance of the evidence",[1] is well brought out in the following discussion:

> "The requirement that the accident be one which ordinarily does not occur in the absence of someone's negligence is solely a matter of the logic of proof. Proof of the occurrence of a type of injury which is as easily attributable to unavoidable accident as it is to negligence does not tend to establish negligence of the defendant by a preponderance of the evidence. In such a case a conclusion of negligence would be mere conjecture, unless supported by other evidence. But if an accident is of a type which is attributable to the absence of proper care more often than not, the occurrence of such an accident implies a preponderant

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1. See authorities collected in MCCORMICK, EVIDENCE § 319 (1954).

probability that it was caused by negligence. The strength of the probability, of course, is relative, but proof in a negligence case is always relative, a matter of preponderant probability. The plaintiff is not required to exclude all other possible explanations of the occurrence." [2]

While the faithful application of these principles would keep liability within the bounds set by the fault concept, there can be no doubt that the use of the res ipsa device has facilitated the modern trend toward strict liability by encouraging "the assumption of broad and doubtful postulates favorable to liability in many situations where the courts would otherwise be understandably reluctant to adopt them, at least without the aid of expert opinion." [3] As the same acute commentator observes, "[T]his process has been aided by the tendency of the doctrine to focus attention on the fact that carefully made and operated appliances do not in the vast majority of instances cause injury and to obscure the inquiry whether the majority of the accidents which occur are due to negligence." [4] This observation suggests the need for reformulating the traditional statement of the first requirement of the doctrine. The expression "does not ordinarily happen in the absence of negligence" may be less objectionable than "does not ordinarily happen if due care is used", but in each case the word "ordinarily" is misleading, since it directs attention at the total range of experience in a given field, whereas the inquiry should be turned toward the extraordinary or abnormal occasions *when accidents occur,* and the question whether their occurrence is more often attributable to negligent conduct than not. To give an example, suppose that on 90% of the occasions when a certain instrumentality was used, it caused injury to nobody, while 70% of the accidents, *i.e.,* 7% of total, were unavoidable by human care, and the remaining 3% were attributable to human carelessness. It would then be true to say that such an accident "does not ordinarily happen if due care is used", yet it would not be true to say that such accidents are "more often than not" negligently caused. The only relevant inquiry is the incidence of negligence in the area where accidents take place, but the facile gliding from one formula to another has enabled courts to impose liability without undertaking such an inquiry.[5]

For example, in the case of *United States v. Kesinger*[6] the court

2. S. T. Morris, *Res Ipsa Loquitur in Texas,* 26 TEXAS L. REV. 257, 260 (1948).
3. 2 HARPER & JAMES, TORTS 1079 (1956).
4. *Id.* at n. 16.
5. *Cf.* Morris, *supra* note 2 at 262 and examples there given.
6. 190 F.2d 529 (10th Cir. 1951).

allowed recovery for an airplane accident by relying on evidence of safety records of airplane companies. This evidence showed that accidents are rare, but showed nothing about the relative incidence of negligent and non-negligent factors contributing towards the cases when accidents occur.[7]

A similar criticism was levelled at the majority by a dissenting judge in a case where a child had died on the operating table during a tonsillectomy.[8] An expert witness was asked whether death was the normal result of such operations when performed carefully, and replied that she had performed "hundreds of these tonsillectomies" and that this was "the first case in which a death had ever occurred." The majority stated the requirement in the traditional terms of whether such an accident does not ordinarily occur when due care is used, and concluded on the basis of this expert testimony that the requirement had been satisfied. Traynor J., dissenting, asserted that such testimony "establishes only that such accidents are rare; it was silent on the question as to what are the probable causes when such deaths do occur. . . . [T]he court in effect holds that solely because an accident is rare it was more probably than not caused by negligence. There is a fatal hiatus in such reasoning. The fact that an accident is rare establishes only that the possible causes seldom occur. It sheds no light on the question of which of the possible causes is the more probable when an accident does happen . . ." [9]

The conclusion to be drawn from this is that the proper form of the question to be addressed to the expert witness is, "Is such an accident as we have here more often than not due to negligent conduct on the part of those in charge?" [10] This is more apt to elicit information which is relevant to drawing the inference of negligence than the more usual formula, which may predispose the court into accepting evidence of rarity as satisfying this requirement. Certainly from the viewpoint of the defendant, it should be useful to stress the distinction.

7. This point is taken simply to show that the traditional statement of the first requirement of res ipsa tends to obscure the inquiry which is logically relevant to fault liability. There may be, however, another inquiry into the justness and expediency of spreading the loss irrespective of fault. In pursuing this inquiry, a showing of rarity would be relevant, lending support to the suggestion that the proposed liability should be regarded as a cost of operating the business.

8. Cavero v. Franklin Gen. Benevolent Soc., 36 Cal. 2d 301, 223 P.2d 471 (1950).

9. *Id.* at 313, 223 P.2d at 479.

10. This is the formulation used by the court in Hall v. St. Louis, 248 S.W.2d 33, 38 (Mo. Ct. App. 1952); *cf.* PROSSER, TORTS 204 (2d ed. 1955) cited in Owens v. White Memorial Hosp., 138 Cal. App. 2d 634, 292 P.2d 288, 291 (1956).

I.

PROBLEMS RAISED BY THE LAW OF EVIDENCE.

After a brief examination of the historical materials, Learned Hand concludes:

> "The upshot of this examination seems to be that the use of experts as witnesses existed when the present exclusive rules of evidence were not yet developed or enforced; that as the rule excluding the opinions or conclusions of witnesses took form, the use of experts being established and convenient remained unaffected when other opinion evidence disappeared. What I have called the 'exception' which expert evidence represents is therefore no more than a relic of the usage of an undeveloped age which had not so far differentiated witness from jury as rigidly to confine each to its function. The rise of expert testimony is no more than the gradual recognition of such testimony, amid the gradual definition of rules of evidence, as a permissible, because supposedly useful, archaism." [11]

The problems which the modern exclusionary rules have here created are legion. The main ones may be summarized as follows: hearsay (the "learned treatise" exception may reduce the problem), relevance, risk of undue consumption of time, possible lack of notice to the other party, usurpation of the jury's function, and undue impact on the jury.[12] Where the basis for the expert's testimony is something he has read on the subject, then it is obvious that the author is not subject to cross-examination to refine and qualify his expressed views. Even when he is basing his testimony on past experience of similar events, there is the objection that these were really unique events.[13]

Germane to the present discussion is the suggestion — offered as a partial answer to the objection of expense in hiring an expert — that counsel introduce evidence of scientific data resulting from previous

11. Hand, *Historical and Practical Considerations Regarding Expert Testimony,* 15 HARV. L. REV. 40 (1901).

12. See Levin & Levy, *Persuading the Jury With Facts Not in Evidence: The Fiction-Science Spectrum,* 105 U. PA. L. REV. 139, 174 (1956).

13. *Cf.* Lance v. Van Winkle, 358 Mo. 143, 213 S.W.2d 401 (1948) where despite the expert's careful attempt to achieve a rigidly controlled scientific experiment, the appellate court held that the trial court had properly excluded this evidence on the basis of dissimilarity (chemist performed experiment placing ice cream on slab of marble and exposing to same temperature as day of accident, observing how long it took to become brown and crusty — advanced to show length of time ice cream had remainded on floor of defendant's shop, to support action in negligence in failing to remove ice cream after sufficient time). This suggests a line of possible fruitful cross-examination, directed at showing that other party's witness has experience in an instrumentality different from that which caused the accident.

experimental projects. While this method has many advantages,[14] it is subject to stronger objections than the use of expert witnesses. It has been suggested that there is ground for arguing that the use of expert witnesses may offend traditional requirements of the law of evidence, but at least the expert witness is subject to cross-examination to test the range of his experience and views. Where evidence is introduced by counsel, even this possibility is lost. Even in the few cases where extrinsic "scientific" evidence on questions of credibility has been admitted, they have dealt with testimony going to the qualifications of an individual witness whose credibility was directly in issue.[15] However the advantages in terms of clarity and reliability are great, and it has been argued that, properly circumscribed by the requirements of reliability of authority and tendency to advance the inquiry, not only should this data be admitted, but also counsel should be permitted to make reference to such data in argument.[16]

II.

OTHER REQUIREMENTS OF RES IPSA LOQUITUR.

Before the tactical considerations are discussed, the second and third requirements of res ipsa will be briefly discussed. The second requirement is that the instrumentality causing the accident must have been within the exclusive control of the defendant. Some courts have modified the severity of this requirement by requiring exclusive control at the time of the negligent act[17] — which may precede the plaintiff's injury —, but the better view seems to be to abandon the requirement as a test.[18] It is true that the plaintiff must show not only that the facts indicate negligence, but that they indicate that the defendant was negligent.[19] It is also true that a showing that (1) more often than not accidents of this type are attributable to the negligence of those in control, and (2) the defendant was in exclusive control of the instrumentality, is one way of finding the defendant negligent. But there are other ways of doing this, such as the method adopted in recent California cases, namely, of showing (1) more often than

14. Some of them are the following: reliability (the author being less likely to have an axe to grind — at least he was not motivated by any interest in the present litigation); the avoidance of complicating cross-examination designed simply to emphasize the range of possibilities not excluded by research, rather than the range of probabilities which have been established. See Levin & Levy, *supra* note 12, at 173-74.
15. *Ibid.*
16. *Id.* at 175.
17. Escola v. Coca Cola Bottling Co., 24 Cal. 2d 453, 150 P.2d 436 (1944).
18. *Cf.* PROSSER, TORTS 206 (2d ed. 1955).
19. *E.g.,* Larson v. St. Francis Hotel, 83 Cal. App. 2d 210, 188 P.2d 513 (1948).

not such accidents are attributable to *somebody's* negligence, then (2) eliminating the other possibilities by affirmatively showing care on the part of the subsequent handlers, leaving the inference that the defendant was negligent.[20] In other words, the important thing is some proof connecting the inference of negligence with the defendant, and the exclusive control technique is only one way of doing this, but is not itself an independent requirement.

The third requirement of absence of contribution by the plaintiff is also unsound, stated as an arbitrary limitation. In many res ipsa cases the plaintiff has played an active part — he may have switched on a light, operated a machine, or picked up a soft drink bottle — but he is not thereby denied recovery unless he acted negligently.

III.

TACTICAL CONSIDERATIONS — PLAINTIFFS.

One problem which arises in an acute form in the type of case under discussion is the possible inconsistency of pleading both specific negligence and res ipsa. Taking first the question of what the position *ought* to be, it is submitted that there is no necessary inconsistency between these two pleas. Prosser illuminates the matter with the following discussion:

> ". . . [P]roof of specific facts does not necessarily exclude inferences. When the plaintiff shows that the railway car in which he was a passenger was derailed, there is an inference that the defendant has been negligent. When he goes further and shows that the derailment was caused by an open switch, he destroys any inference of other causes, but the inference that the defendant has not used proper care in looking after its switches is not destroyed, but strengthened. If he goes further still and shows that the switch was left open by a drunken switchman on duty, there is nothing left to infer; and if he shows that the switch was thrown by an escaped convict with a grudge against the railroad, he has proved himself out of court. It is only in this sense that when the facts are known there is no inference, and res ipsa loquitur vanishes from the case. It is quite generally agreed that the introduction of evidence which does not purport to furnish a complete explanation of the occurrence does not deprive the plaintiff of res ipsa loquitur." [21]

Surely this reasoning is right. In a res ipsa case the plaintiff's burden of proof may be met even though the inference is equivocal as to just

20. *E.g.*, Zentz v. Coca Cola Bottling Co., 39 Cal. 2d 436, 247 P.2d 344 (1952).
21. PROSSER, TORTS 214 (2d ed. 1955).

what the defendant's specific acts or omissions were, so long as it appears sufficiently likely that defendant's conduct included *some* act or omission which a jury could call negligent. For example, in *James v. Boston Elevated Ry.*,[22] the derailment which caused the plaintiff's injuries could have been due to a defect in the track, a defect in the car, or the negligence of the driver in operating the car. Although one of his own expert witnesses had testified that he knew nothing that would cause a derailment except one of these causes, the defendant argued that each possibility had to be considered in isolation, and there was no evidence to warrant a finding of any particular kind of negligence, since it was impossible to say that the probability of any one explanation exceeded the sum of the probabilities of the alternative explanations. The court rejected this argument, pointing out that each of these explanations connoted negligence on the part of the defendant.

Now, suppose that in the *James* case the plaintiff had pleaded specific negligence in the operation of the car by the defendant's servant, perhaps buttressing this by further evidence, *e.g.*, that the defendant's servant was seen talking to another passenger immediately prior to the derailment. Should the court conclude that this argument has not been made out and if the allegations have been separately pleaded, there is no reason for preventing the plaintiff from relying on the res ipsa doctrine. The mere fact that a specific explanation was offered unsuccessfully does not eliminate the other explanations involving negligence: in fact it does not even remove the explanation offered from the range of possibilities. The court may quite reasonably conclude that although there was insufficient evidence to sustain a finding of negligence in any respect considered separately, the evidence was sufficient to sustain the finding that the derailment would not have occurred if the defendant had exercised due care in all respects — as it did when no specific explanation was offered.

All of this shows simply what the position *ought* to be. Despite what may be regarded as a cogent argument to the contrary, however, from the tactical point of view the fact must be faced that some courts have held that the pleading of specific items of negligence precludes the plaintiff from taking the benefit of res ipsa loquitur.[23] However vulnerable this position may be from the logical standpoint, it must be taken into account. If plaintiff's counsel is arguing in one

22. 204 Mass. 158, 90 N.E. 513 (1910).

23. Midland Valley R.R. v. Conner, 217 Fed. 956 (8th Cir. 1914); O'Rourke v. Marshall Field & Co., 307 Ill. 197, 138 N.E. 625 (1923); Lyon v. Chicago, M. & St. P. Ry., 50 Mont. 532, 148 Pac. 386 (1915); Langeland v. 78th & Park Ave. Corp., 129 N.Y.S.2d 719 (Sup. Ct. 1954).

of the minority jurisdictions which take such a view, he must assess the relative prospects of arguing either specific negligence or res ipsa loquitur, and argue whichever one he considers the better case. If the jurisdiction has not yet pronounced upon the question, he must balance the advantages of pleading specific negligence against the chance that this court will take the minority view. In a majority jurisdiction, he is not forced to make any choice, but he should be careful to frame the allegations separately in order to forestall the objection of lack of notice.[24]

It has already been suggested that expert evidence may most fruitfully be employed in order to satisfy the first requirement, that such accidents are more often than not attributable to negligence. Sometimes this requirement will be satisfied on the basis of common experience, and no expert testimony will be needed. It is common knowledge that the descent of barrels is more often associated with negligence than not,[25] that more often than not the swerving of a car off the highway is attributable to negligence,[26] and that human toes do not get into chewing tobacco without negligence on the part of somebody in the process of preparation or packaging.[27] Sometimes, however, common experience sheds no light on the causes of the type of accident in question, and expert testimony may be necessary to fill this gap. There are really two questions involved here, (1) is expert testimony essential, (2) is it tactically desirable. Although there may be some cases where it is clearly not essential, but is nevertheless desirable to improve one's position or to impress the jury, these two questions are generally interrelated, since counsel will rarely know in advance how the court is going to rule on the first question. He therefore takes a risk that the court will deem it essential if he fails to use expert testimony. There may, on the other hand be risks and disadvantages associated with using the expert witness.

Let us look first at the cases where the courts have said expert evidence is essential. The courts are especially likely to take this view where technical matters are involved, and in some cases the language stressing the lack of expert testimony has been quite strong. For example, in *Roscigno v. Colonial Beacon Oil Co.*,[28] oil in a vaporizing

24. Rauch v. Des Moines Elec. Co., 206 Iowa 309, 218 N.W. 340 (1928); McDonough v. Boston Elev. R.R., 208 Mass. 436, 94 N.E. 809 (1911); Kleinman v. Banner Laundry Co., 150 Minn. 515, 186 N.W. 123 (1921); Williams v. St. Louis Pub. Serv. Co., 363 Mo. 625, 253 S.W.2d 97 (1952).

25. Byrne v. Broadlem, 2 H. & C. 722, 159 Eng. Rep. 299 (1863).

26. Worsham v. Duke, 220 F.2d 506 (6th Cir. 1955).

27. Pillars v. R. J. Reynolds Co., 117 Miss. 490, 78 So. 365 (1918).

28. 294 Mass. 234, 200 N.E. 883 (1936).

tank in the defendant's plant exploded, causing personal injuries to the plaintiff. In denying recovery, the court said:

> "But in order to make applicable the rule res ipsa loquitur, the tribunal of fact must be able to find, either by expert evidence . . . or by its own common knowledge . . . that the mere occurrence of the accident shows negligence as a cause.
>
> "In the case at bar there was no such expert evidence." [29]

Clearly then, in such cases, expert testimony is essential to recovery under the res ipsa doctrine, and in those jurisdictions such cases establish precedents guiding counsel in his preparation of the case — he will know that he is wasting his time if he does not use expert testimony to enlighten the court.

Not all cases are so clear, however, and counsel may have to guess whether the court will insist on expert testimony. Nevertheless, it is possible to speculate that different results might have been reached in some cases had expert testimony been used. Take, for example, the case of *Galbraith v. Busch*.[30] That case concerned an injury to a guest when a car swerved in circumstances justifying the inference of negligence either in operation or maintenance of the car. The court, therefore, conceded that the plaintiff might have recovered if the defendants had owed a duty to the plaintiff to exercise reasonable care both in the operation and maintenance of the car. As a guest, however, the plaintiff assumed the risk of defects in the vehicle not actually known to the defendants. The court concluded that:

> "The evidence, though unexplained, cannot possibly lead to an inference that the accident was due to lack of care in the operation of the automobile, *for the probability that it occurred from a break in its mechanism is at least equally great . . .*" [31]

It is obvious that the italicized passage is the court's supposition. In the light of the findings of one factual investigation[32] that only 3.5% of all cars involved in accidents have had known mechanical defects,

29. *Id.* at 235-36; *cf.* the strong language used in Delap v. Liebenson, 190 Wisc. 73, 208 N.W. 937, 940 (1926). *Cf.* also Williams v. United States, 218 F.2d 473, 476 (5th Cir. 1955) ("We have no knowledge judicial or otherwise, of what would cause a jet airplane to explode in mid-air while in flight.") and Mummery v. Irvings, Pty. Ltd., [1956] 96 Commw. L.R. 99, 117 ("We are told nothing of the characteristics of circular saws."). See also Zampos v. United States Smelting, Ref. & Mining Co., 206 F.2d 171 (10th Cir. 1953); Pauley v. Baltimore & O. R.R., 215 S.W.2d 78 (Mo. Ct. App. 1948); Stanolind v. Lambert, 222 S.W.2d 125 (Tex. Civ. App. 1949).

30. 267 N.Y. 230, 196 N.E. 36 (1935).

31. *Id.* at 235, 196 N.E. at 39 (italics supplied).

32. James & Dickinson, *Accident Proneness and Accident Law*, 63 HARV. L. REV. 769, 770-71 (1950).

and in only 0.25% of all cases was it shown that the defect played a part in causing the accident, it seems likely that expert evidence would have changed the result.[33]

It seems obvious, then, that there may be cases where plaintiff's counsel who fails to use expert testimony runs the risk that the court will regard this matter as one outside the bounds of common knowledge, and, further, that even where such testimony is not essential, it may nevertheless be tactically desirable to use it. Indeed S. T. Morris suggests that such evidence should always be used where it is available. As he puts it, "*the risk* of relying on common knowledge should not be taken if evidence is available to illuminate the problem . . ." [34]

On the other hand, in response to a climate of opinion which favors the imposition of strict liability, some courts have shown a readiness to assume that the probabilities are in the plaintiff's favor without requiring expert testimony.[35] The plaintiff's attorney may therefore be prepared to gamble against the chance of the court insisting on such evidence, bearing in mind the high cost of such testimony[36] and the possibility that such evidence may lead the court to think twice about assuming probabilities in the plaintiff's favor. The "risk" of relying on common knowledge does not seem to be very great in the vast bulk of cases.

Fleming James, Jr. sums up the relative strength of these considerations as follows:

> "Where plaintiff is sure the court will invoke the doctrine, the introduction of such evidence will serve only to alert the court to the dangers of the leap of faith which it was fully prepared to make without a second thought. But where it appears that the court is quite likely to ponder the legitimacy of the inferences to be drawn or is likely to refuse to apply the doctrine in the case, the introduction of favorable expert testimony might well be very helpful."[37]

Although expert evidence is most frequently used by plaintiffs in res ipsa cases in order to show that such accidents are more often than not attributable to negligence, this is not its only use. In *Texas*

33. Reference has already been made to the possibility of counsel introducing such data into evidence without calling an expert witness. There is another possibility — that the court take judicial notice of such data. On this see Davis, *Judicial Notice*, 55 COLUM. L. REV. 945, 952 (1955).

34. Morris, *supra* note 2 at 262 (italics supplied).

35. On this see 2 HARPER & JAMES, *Torts* 1083 (1956); Morris, *supra* note 2 at 262.

36. Noted in 48 NW. U. L. REV. 106 (1953); 2 SYRACUSE L. REV. 324 (1952). Suggestions made to alleviate costs are the introduction of data by counsel and the use of a statistician to advise the court. See Levin & Levy, *supra* note 12 at 176.

37. 2 HARPER & JAMES, TORTS 1083, n. 12 (1956).

Power & Light Co. v. Bristow[38] we have an excellent example of the shrewd and intelligent use by plaintiff's counsel of expert evidence in order to lay a factual foundation for drawing the inference of negligence. This was a wrongful death action brought against the electricity company which supplied the decedent's home. There are two logical steps in the *Bristow* case:

(1) Death by electric shock would not ordinarily occur unless the current exceeded 110 volts;

(2) Excessive voltage would most probably be attributable to the defendant's negligence.

At both stages expert evidence is used to buttress the plaintiff's argument. The following testimony was relied upon in establishing the first step:

(a) Medical testimony that a man as healthy as the deceased would not receive a serious shock from 110 volts if all the connections were in perfect condition;

(b) Testimony of neighbors who received shocks from secondary wires connected with the same transformer through which the electricity entered the deceased's home, combined with expert testimony that these parties would not have received shocks in the manner described if only 110 volts had passed from the transformer;

(c) Evidence that electricity passing over a secondary wire had burned a limb off a tree the day before the deceased's accident, combined with expert testimony that this would not have occurred in the manner described if only 110 volts had passed through the wires in the bathroom;

(d) Evidence that the iron which the deceased had been using burned the linoleum when the deceased dropped it, combined with expert testimony that this would not have occurred if only 110 volts had been passing through the wires in the bathroom;

(e) Expert testimony that a shock suffered by a neighbor who, after the accident, tried to disconnect the electric current at the point where it entered the house, would not have been sustained if the current had not been excessive;

(f) Expert testimony that the deceased would not have sustained an inch long burn on his finger with normal current.

Having established that the current was almost certainly excessive, the plaintiff then used expert testimony to show that the only reasonable explanations of excessive current would both be attributable to the defendant's negligence.

38. 213 S.W. 702 (Tex. Civ. App. 1919).

A slightly different use of expert evidence was made in the Australian case of *Davis v. Bunn*,[39] in order to strengthen the inference of negligence. Plaintiff, standing beside his parked car, was injured when the defendant's truck suddenly veered across the road, striking the plaintiff and his car and crashing into a fence. Subsequent investigation revealed two salient facts — the right hand front wheel had come off the truck and the steering arm had broken. Reconstructing the sequence of events, two possibilities were equally tenable. Either (a) the wheel came off first, causing the hub to act as a fulcrum around which the car would move in a clockwise direction, and the steering arm broke in the subsequent impact with the plaintiff's car or the fence, or (b) the steering arm broke first, and the strain placed on the wheel in the sudden movement to the right wrenched the wheel loose, causing it to fall off. Only on the former hypothesis would the defendant be liable, for failure to maintain the car in a safe condition in allowing the wheel to become loose. Expert mechanical evidence was introduced by the plaintiff, to show that in view of the smooth road surface the former was the more likely hypothesis, for that would explain why the truck swerved to the right.

IV.

TACTICAL CONSIDERATIONS — DEFENDANTS.

Once the plaintiff has established that res ipsa applies, the defendant may choose between several different lines of defense.

First, he may attempt to show that he discharged his duty, without disclosing the precise cause of the accident. This is a dangerous line, since, as Fleming James, Jr. has pointed out, it puts the defendant in this dilemma:

> "the less effective his precautions to prevent the occurrence the more apt they are to appear negligent; the more effective the precautions testified to, the less likely they are to have taken in this case since the accident *did happen.* Indeed the showing of a foolproof system of precautions *demonstrates* negligence unless it succeeds in convincing the trier that no such occurrence ever proceeded from the defendant." [40]

Skilful exploitation of this dilemma by plaintiff's counsel may make his case a formidable one, as is shown in the cross examination of de-

39. [1956] 56 Commw. L.R. 246.

40. 2 HARPER & JAMES, TORTS 1106 (1956) (authors' italics); *cf.* PROSSER, TORTS 216-17 (2d ed. 1955). In Walsh v. Holst & Co., [1958] 1 Weekly L.R. 800, 812, the evidence of elaborate precautions led Sellers, L.J. to doubt whether a brick had in fact fallen on plaintiff's head.

fendant's witness set out below. This is from the Australian case of *Fitzpatrick v. Cooper*,[41] where plaintiff's decedent, while working on the ground floor of a building in the course of erection, was struck by a bag of plaster which had fallen from a skip which the defendant's employees had raised to a considerable height.

Q. May I take it, after your demonstration outside, that it is impossible for an article to fall from one of these skips if properly tied?

A. Yes, absolutely.

Q. Quite impossible. You have no doubt of that, have you?

A. No.

Q. If a skip be properly tied nothing can fall from it. Is that right?

A. Yes, that is right.

Q. And you are certain of that?

A. Yes.

Q. I suppose you will agree that this man, Fitzpatrick, is dead? You know that, do you not?

A. Yes, I know that.

Q. And you know that he was hit by a bag which fell from your skip. Do you agree with that?

A. Yes.

Q. Have you any doubt that it was a bag which fell from your skip which hit him?

A. No.

Q. Tell us why the bag fell from the skip seeing that you can make a skip foolproof by proper tying?

A. I could not tell you. I do not know.

Q. You were on the skip?

A. Yes.

Q. You saw the bag fall?

A. I do not know how it happened though.

Q. Does it occur to you that some of those knots may not have been tied with the same precision which marks your tying today?

A. No, the knots were right.

Q. The wires were right?

A. Yes.

Q. The bags were right?

A. Yes.

Q. Everything was right, except Fitzpatrick. Everything was right, was it not? Is that so?

A. Yes.

41. [1935] 54 Commw. L.R. 200.

Q. Do you remember telling the coroner that a load would not tilt because a dogman changed his position?

A. Yes.

Q. Your load did tilt, did it not?

A. Yes, it tilted.

Q. Have you ever previously known a properly tied load to tilt?

A. No.

Q. You will agree that it should not do it?

A. It should not do it, no.

Q. And the only reason why a load can tilt is if all those precautions are not taken, is it not? If there was something missing?

A. There was nothing missing.

Q. That is the only way in which a load can tilt, if something is missed in the original tying?

A. Yes, I suppose so.

As McTiernan J. commented, quoting from an English case: "In fact, their evidence has been largely given to show that the event never did happen; but, unfortunately for them, it did happen." [42]

It is sometimes said that one possible line of defense takes the form of the suggestion of possible causes of the accident which are consistent with the absence of negligence on the part of the defendant. Lord Dunedin, for example, suggested in *Ballard v. North British R.R.*[43] that if the defendant "can show a way in which the accident may have occurred without negligence, the cogency of the fact of the accident by itself disappears."

It may be tactically wise to emphasize the alternative possibilities, but it is difficult to accept the suggestion that this completely dispels the inference of negligence. If the case is a res ipsa case, then by definition the plaintiff must have established, or at least the court must have accepted, that more often than not an accident of the type involved is caused by failure to use reasonable care by the person in charge of the instrumentality. Despite some loose language to the contrary,[44] it is submitted that the plaintiff is not required to exclude all other possible causes, for the accepted statement of the first requirement is that in the ordinary course of events the accident would not, (not could not) happen in the absence of negligence.[45] Indeed, con-

42. *Id.* at 228.

43. [1923] S.C. (H.L.) 43, 54.

44. *E.g.,* Du Bois v. De Bauche, 262 Wis. 32, 38, 53 N.W.2d 628, 631 (1952) where it is said that it is necessary to show that the accident *"could* not have happened except for the negligence on the part of the defendants" (italics added).

45. See Langham v. Governors of Wellingborough School, 101 L.J.K.B. 513, 520 (1932) where Scrutton, L.J. answered defendant's contention based on his previous

sistently with the analysis pursued above,[46] relating the doctrine of res ipsa to the burden of proof, it should be sufficient for the plaintiff to show that fifty-one per cent of such accidents are attributable to the negligence of the person in control of the instrumentality.[47] Other possibilities may coexist. As Prosser puts it:

> "When plaster falls from the ceiling of a hotel room, it suggests a variety of causes ranging from jolts from passing street cars, through over-enthusiastic festivities on the part of people upstairs or previous guests, to an earthquake. All such inferences, including in this state even the last, are entirely reasonable and by no means excluded; and it is for the jury to say whether on the whole the most probable explanation is negligence in having the plaster in such condition. The derailment of a train, the washout of a railroad bridge, the fall of an elevator, the collapse of an automobile wheel, and the parked car which starts down a hill all suggest similar alternative possibilities; yet they are proper cases for res ipsa loquitur. The most recent decisions have recognized the error and have held that the inference is not required to be an exclusive or compelling one . . . ." [48]

There is ample judicial support for these views,[49] but one of the most relevant and most recent expressions supporting the text is contained in *Rindler & Weiler, Inc. v. Blockton Realty Corp.*,[50] where a tenant sued his landlord to recover for damage caused by water when the valve on the defendant's uncovered water pipe broke, causing water to flood the premises:

> "It is true that the pipe may have broken for any of a number of reasons not implying negligence on the part of the defendant. Among those suggested are earthquake, extraordinary water pressure, vandalism and an inherent defect in the metal of the pipe not discoverable by a reasonable examination. All of these are possibilities but they are remote. The rule does not require the elimination of all such possibilities. There is always a possibility in any case that the result was due to a cause unconnected with negligence." [51]

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use of the word "could": "I have no desire whatever to put the blame on the reporter. I may have said that. If I said that, it was wrong. The correct expression is '. . . would not . . . .'" *Cf.* Lewis, *A Ramble With Res Ipsa Loquitur*, 11 CAMB. L. J. 74, 79 (1951); *cf.* also Mehaffy, J. in Herndon v. Gregory, 190 Ark. 702, 714-15, 81 S.W.2d 849 (1935) (dissenting opinion).

46. See note 2, *supra*.

47. *Cf.* Prosser, *Res Ipsa Loquitur in California*, 37 CALIF. L. REV. 183, 194 (1949); *cf.* also Kennedy's suggestion in 2 J. AIR L. & COM. 71, 77 (1931) that res ipsa in aircraft cases calls for an inquiry into the law of averages.

48. Prosser, *supra* note 47 at 195-96.

49. *E.g.*, Owens v. White Memorial Hosp., 138 Cal. App. 2d 634, 292 P.2d 288 (1956); Burlington-Rock Island R.R. v. Ellison, 140 Tex. 353, 167 S.W.2d 723 (1943); see cases cited in 18 So. CAL. L. REV. 15, 21 (1944); see also 37 CORNELL L. Q. 543, 546 (1952) and Prosser, *supra* note 47.

50. 205 Misc. 355, 128 N.Y.S.2d 417 (1954).

51. *Id.* at 419.

If this reasoning is correct, then the suggestion by the defendant of other possible causes does not displace the inference of negligence, for the inference of negligence is perfectly compatible with the existence of other possibilities.[52]

Perhaps, however, this reasoning belongs to the ivory tower. It would be appropriate if courts invariably reasoned logically, but this of course is not so. Courts are frequently willing to make doubtful assumptions about the probability of negligence without insisting on expert evidence[53] — perhaps as a means of implementing a non-logical policy of strict liability.[54] Fleming James, Jr. counsels against the use in some cases of expert evidence by plaintiffs, as this would "serve only to alert the court to the dangers of the leap of faith which it was fully prepared to make without a second thought." [55] For the same reason it may be useful for the defendant to suggest other reasonable causes consistent with his due care, for such a suggestion may make the court think twice about their assumptions. In other words such an argument really operates to show that this is not a true res ipsa case, by challenging the truth of the assumption that such an accident is more often attributable to negligence than not.[56] Where we have a true res ipsa case it is submitted that this line of defense is not available, as a means of preventing the case from getting to the jury, although it may be useful to emphasize the alternative possibilities before the jury. It has been possible to use it to prevent res ipsa from applying in many cases only because of the readiness of judges to make erroneous assumptions about technical matters,[57] and because the line between res ipsa cases and non-res ipsa cases is necessarily tenuous.[58] It finds valid application whenever it has not yet been determined that the case in question is a res ipsa case.

But even in such cases, it will not avail the defendant to make wildly extravagant suggestions, like that of the defendant in *Plunkett v. United Elec. Service*,[59] that the fire may have been caused by rats playing with the matches, or that the flour barrel may have

52. *Cf.* Moore v. Fox, [1956] 1 Q. B. 596.

53. 2 HARPER & JAMES, TORTS 1082 (1956); Morris, *supra* note 2 at 262.

54. 2 HARPER & JAMES, TORTS 1080-81 (1956). This reasoning implies an assumption that juries favor plaintiffs — an assumption supported by findings of actual studies.

55. 2 HARPER & JAMES, TORTS 1083, n.12 (1956).

56. *Cf.* Moore v. Fox, [1956] 1 Q. B. 596, 614-15.

57. See note 53, *supra*.

58. Rindler & Weiler v. Blockton Realty Corp., 205 Misc. 355, 128 N.Y.S.2d 417 (1954).

59. 214 La. 145, 155, 36 So.2d 704, 707 (1948).

dropped from a passing balloon.[60] The courts which have listened to such a defence have generally limited it to a showing of another cause which is "plausible" [61] or "reasonable and probable",[62] and which is consistent with the defendant's compliance with the standard of reasonable care.

Another possible defence consists of revealing the true cause of the accident. Little need be said about this, except that it is the obvious line to pursue in the rare cases when the cause is known (and where that cause does not connote negligence on the part of the defendant). It provides a complete answer to the action.

An important line of defence is that of producing expert evidence that such an accident as often as not happens despite the exercise of all due care. This destroys the foundation of res ipsa loquitur, and removes the basis for inferring negligence. Whether it is wise for the plaintiff to use expert evidence in all cases or not,[63] it is almost always good tactics for the defendant to introduce such evidence.[64] The only possible exceptions may be (1) where an expert is essential for the plaintiff's case and it is possible that plaintiff has not been able to acquire one (this frequently happens in medical malpractice suits as a result of the "conspiracy of silence" in the medical profession[65]), for unless it is known that the proposed expert's views are strongly in favor of the defendant there may be a chance that by calling the expert the defendant will be providing the plaintiff with his needed expert testimony; (2) where there is little social utility in the enterprise, and such evidence will only tend to emphasize the danger of the enterprise generally, and induce judicial hostility.[66]

Sometimes it may be useful for the defendant to introduce such evidence even though plaintiff has introduced none, for the reason that it serves to reveal to the court the impropriety of the "leap of faith" which it may well have been prepared to make. Such evidence is even more useful where the plaintiff has introduced expert evidence that the accident is normally associated with negligence. Often the frequency of accidents and their relationship to careful conduct are

60. See Lord Dunedin's hypothetical suggestion in Ballard v. North British R.R., [1923] S.C. 43, 54-55 (used to illustrate limitation to "reasonable" alternative causes).

61. Southport v. Esso Petroleum Co., [1953] 3 Weekly L. R. 773, 781 (Devlin, J.).

62. Wilson v. Colonial Air Transp., Inc., 278 Mass. 420, 425, 180 N.E. 212, 214 (1932).

63. See note 55, *supra.*

64. According to James this is often "logically defendant's best line of defense." 2 HARPER & JAMES, TORTS 1106 (1956).

65. See Belli, *An Ancient Therapy Still Applied: The Silent Medical Treatment,* 1 VILL. L. REV. 250 (1956).

66. 2 HARPER & JAMES, TORTS, 1106-07 (1956); see also note 70, *infra.*

themselves matters for argument, especially in technical matters. In the case of a young, developing discipline, where no great body of experience has been accumulated, it should not be difficult to find an expert who holds views opposite to those expressed by the plaintiff's witness. Starling Morris sums up in relation to both situations — where the plaintiff has not used expert evidence and where he has — by saying that "the cover of common knowledge may be thrown back by contradicting evidence, and expert may be opposed by expert." [67]

In *Deojay v. Lyford*,[68] plaintiff, an employee working at an airport, was struck when an airplane operated by the defendant ran off the macadamized part of the runway. The court rejected the plaintiff's argument that this was a res ipsa case on analogy to cases where automobiles run off the highway. After pointing out the different degrees of control exercised by the car driver and the plane operator, the court continued: "The expert who testified in the instant case says that it is a common occurrence for an airplane in landing to go off the hard surface of the runway even when handled by an experienced pilot. . . ." [69] Accordingly the court concluded that the "vast advances" which had been made in air transport had not yet taken airplane development to the stage where the doctrine could be applied to it.[70]

In *Texas & N.O.R.R. v. Schreiber*,[71] plaintiff sued the defendant railroad company for damages caused by soot, smoke and oil emitted from a locomotive engine operated by the servants of the defendant. Carson, the master mechanic, had testified on direct examination that the expulsion of moisture could only be prevented by operating the locomotive very slowly and easily. Cross examination produced the following colloquy:

Q. Isn't it possible that a locomotive could have been standing fifteen or twenty minutes, or thirty minutes, then when it started up instead of starting slowly, it gave out a lot of steam and started up suddenly causing this oil to be emitted from the smokestack?

A. Well, I would answer that by saying that the harder you work a locomotive the higher the soot goes into the air.

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67. Morris, *supra* note 2 at 262.

68. 139 Me. 234, 29 A.2d 111 (1942).

69. *Id.* at 239, 29 A.2d at 113.

70. Consider this case in the light of the tactical consideration mentioned above at note 66, *supra*. Fortunately for the defendant, the court (apparently) esteemed the social utility of the enterprise, but in giving this evidence the defendant ran the risk of either alienating the court or establishing liability on another basis, such as ultrahazardous activity. It would have been better to have said "run-offs" are infrequent, but when they happen they are generally unavoidable, or at least to have stressed that the frequent "run-offs" generally caused no harm.

71. 104 S.W.2d 929 (Tex. Civ. App. 1937).

Q. In other words if a locomotive had been standing there for that length of time, if they started it gradually it would not throw the soot so high?

A. That would depend upon the size of the train.

Q. I mean if an engine is standing there waiting for orders?

A. Yes, sir.

Q. That is possible?

A. No, sir. If he had 50 or 75 cars behind it he would have to start slowly, but he would have to work the engine pretty hard, it would throw the vapor very high.

Q. If the engineer instead of starting up gradually, gives it more steam, then that would naturally throw the soot up higher?

A. Yes, sir.

Q. But isn't it a fact that when he starts the locomotive gradually, it won't throw it so high?

A. It depends upon the size of the train, if he had a heavy train, the locomotive would be apt to throw it very high.

The appellate court reversed a judgment for the plaintiff on the basis that the main requirement of res ipsa was lacking. In reaching this conclusion it relied strongly on the master mechanic's testimony: "The testimony of Carson shows that the thing here complained of does happen in the usual course of things, even though proper care is used."[72]

Taylor v. Popular Dry Goods Co.[73] was an action by a customer against a department store for injuries sustained when plaster fell from the ceiling. As an invitor the defendant owed the plaintiff a duty of reasonable care in inspection and maintenance of the premises. Judgment for the defendant was affirmed on appeal on the basis of the following testimony of the person who had been the superintendent of the original construction in 1916:

> "Up to the present time there has no one yet found an adhesive that would be a positive adhesive between concrete and plaster. The Gypsum Plaster Manufacturing Company are working on it all the time, and have been up to this time, they have not developed one that has proved satisfactory. It is a fact that in buildings built in the most approved way, and with the best skill, plastering will occasionally work loose without there being any evidence of it until it falls. There was no faulty construction in the ceiling of that mezzanine floor . . . . I said there has been no positive method found to keep plastering from falling when applied directly to a concrete ceiling. Sometimes plastering applied

72. *Id.* at 931.
73. 10 S.W.2d 191 (Tex. Civ. App. 1928).

directly to a concrete ceiling falls and then again it does not, you have no way of knowing. It does not generally fall. It is the type of building usually constructed in that manner." [74]

Once again[75] one may venture the comment that the defendant was a trifle lucky to find himself before such an indulgent court. Here again the defendant almost proved too much: he must have gone very close to proving that it was negligent to build this way at all, knowing the difficulty of building safely in this manner. It may be that he avoided impaling himself on this difficulty by putting his evidence in the form "these accidents are rare (plastering will *occasionally* work loose), but when they occur they are as often as not attributable to non-negligent causes" rather than "these accidents are happening all the time." This is obviously the best way to cast such testimony, and is sufficient for the defendant's purposes.

It has already been observed[76] that the plaintiff may invoke the doctrine or increase his chances of recovery once the doctrine has been invoked, by introducing expert evidence geared to the particular facts of the case which increases the probability that the defendant was negligent. In the same way the defendant may obtain a nonsuit or directed verdict or reduce the chances of recovery by producing expert testimony that if the accident were attributable to the cause which connotes the defendant's negligence, then it ought to have been accompanied by certain symptoms or indicia which are here absent. A good example of this use of expert testimony is provided by *Frank Fehr Brewing Co. v. Corley,*[77] where the plaintiff had been injured by an exploding keg of beer. The two most probable causes of the accident were fermentation and pressure from the gas tank, and it was probably fair to say that a priori these were equal probabilities. However the defendant introduced expert testimony:

(1) that fermentation would be accompanied by a "bubbling" effect, rather that the "spewing" which preceded this explosion;

(2) that the amount of beer which (according to the defendant's testimony) was left in the keg could not cause such an explosion;

(3) (based on experiments, observation and his experience as a brewmaster) that beer which was normal, drew, tasted and looked all right at four o'clock could not possibly go into secondary fermentation by seven o'clock the next morning. This testimony, by helping to exclude the possibility of fermentation as the cause of the explosion, increased the likelihood of the explosion being due to pressure from the gas tank — for which the defendant would not be responsible. By

74. *Id.* at 192.
75. *Cf.* note 70, *supra.*
76. See TACTICAL CONSIDERATIONS — DEFENDANTS, *supra.*
77. 265 Ky. 308, 96 S.W.2d 860 (1936).

rendering the causation conjectural this evidence had removed the justification for submitting the case to the jury.

In summary, this article has had four primary objectives:

(1) to examine the doctrine of res ipsa loquitur generally, and then relate this examination to the use of the expert witness, giving special attention to the form of the question to be asked of the expert witness;

(2) to refer briefly to some of the hurdles which the law of evidence has erected in the way of using expert testimony;

(3) to examine from the point of view of both plaintiff and defendant the question whether, assuming these hurdles can be overcome in a given case, it is nevertheless tactically wise to use such testimony;

(4) to discuss the defendant's position when a res ipsa case has been made out.